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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,974	01/11/2001	Thomas Jeffrey Walker	41PR-7777 (GEN-0210)	9630
23413	7590	04/13/2004	EXAMINER	
CANTOR COLBURN, LLP			MANOHARAN, VIRGINIA	
55 GRIFFIN ROAD SOUTH			ART UNIT	
BLOOMFIELD, CT 06002			PAPER NUMBER	

1764

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/758,974		WALKER, THOMAS JEFFREY	
	Examiner		Art Unit	
	Virginia Manoharan		1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 12-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election of Group I, claims 1-11 in Paper No. 4 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The specification had not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) The phrase "between about" is indefinite because there is no indication as to what range of specific activity is covered by the term about.

See 18 USPQ 2d 1016 Fed Cir. (1991). Also, the temperature range (104-110°C) within the parenthesis is at odds with the initially recited range of "between about 220..." which does not include the 220 °F or 104°C range with the recitation of "between".

(b) There are no proper antecedent basis for supports in the claims for the following recitations:

(1) "...the flash tank" recited in claim 2, line 1; and claim 9, line 2; and

(2) "The vapor phase through a demister" recited in claim 7.

[at least there is inconsistency in the terminology used, which is improper, i.e., "steam" in claim 1 as opposed to "the vapor phase" in claim 7. The same holds true for "a heat exchange media" in claim 1 as opposed to the "heat exchanger" in claim 3.

(3) That the brine is pressurized in claim 3 is not positively recited in the base claim.

(c) Claim 8, as recited, provides for ambiguity as two distinct steps are involved, i.e., steam being introduced to an air stream and being condensed to form water. It appears that the "or" has been omitted. (Compare with page 3, lines 24-27 of the specification).

(d) The preamble of claim 1 recites "A method for cleaning waste water", but the body of the claim does not mention a cleaning step.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the WO 00/21631 in view of EP 0098038.

The WO '631 discloses substantially the process as claimed. See e.g. Fig.1 and the claims at pages 17-21. The process of WO '631 differs from the claimed invention in that claim 1 for example, recites. "...Circulating the brine under pressure through a heat exchange media to heat the brine to between about 220 to about 230°F (104-

110°C)". However, the parameters such as: pressures, temperatures and velocity are deemed to be result- effective- variables which ordinarily are within the skill of the art. Nonetheless, the EP '038 teaches that the process step of circulating through a heat exchanger at temperature e.g., of from 105°C to 120°C (overlapping the claimed temperature) is known in the art.

To incorporate the EP 1038 process to the process of WO '631 would have been obvious to one of ordinary skill in the art inasmuch as EP '038 suggests operating the process over a wide range of temperature in the evaporation of water. See page 6, line 19. See also the suggestion provided at page 14, lines 14-17 of WO '631.

The flash tank (3) of WO '631 is shown as having a conical bottom, (claim 2).

WO '631 pump 11 located upstream of the heat exchanger would obviously recycle material under pressure against the head of the heat exchanger,(claim 3).

The tangential nozzles mentioned at page 5, line 27 of WO '631 corresponds to the claimed "fog nozzle" of claim 5.

Although the prior art did not specifically disclose "brine", however it is deemed of no patentable moment as the fluid in-in-process is not the basis of patentability of a process claim.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21631 in view of EP 0098038 as applied to claims 1-3, 5-7 & 9-11 are above, and further in view of Beasley et al 5, 389,208.

Claim 4 is rendered obvious by Beasley et al teaching of a process of passing the liquid residue through a heater tubing at a rate of flow at least six feet per second

and more preferably 7 to 10 so that the residence time close to any "hot spots" in the tubing is kept low.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21631 in view of EP 0098038 as applied to claims 1-3, 5-7 & 9-11 above, and further in view of Kreisler (4,767,498).

Incorporating the process claimed in claim 8, i.e., of introducing the steam to an air stream for atmospheric venting to the process of WO '631 in the manner as taught by Kreisler would have been obvious to one of ordinary skill in the art as such is conventionally done in the art. Note e.g. col.2, lines 34-49 of Kreisler.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- (a) Zambory, Rajakovics and Erdman all disclose a recirculation method.
- (b) Files et al discloses a method for treatment of brine.
- (c). Abry et al .discloses a process for recovering processing liquids.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is (571) 272-1450. The examiner can normally be reached on Tuesday-Friday from 7:00a.m to 6:00p.m.

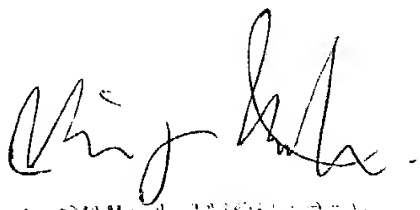
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9311.

Art Unit: 1764

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manoharan/tgd

March 25, 2004


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 128 / 764